CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE MONITORING AND REPORTING PROGRAM NO. R9-2003-0111

FOR GENERAL WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES OF TREATED GROUNDWATER FROM
VOLATILE ORGANIC COMPOUND CLEANUP SITES
TO LAND IN THE SAN DIEGO REGION

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and receiving water.

2. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board.

3. Sample collection, storage and analysis must be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this monitoring and reporting program.

4. The discharger shall submit a sampling and analysis plan as part of the Report of Waste Discharge required in Directive A.4 of Order No. R9-2003-0111. Specific methods of analysis, and quality assurance/quality control methods, must be identified in the plan.

5. If the discharger monitors any pollutants more frequently than required by this Order, using the most recent version of Standard USEPA Methods, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.

6. All monitoring instruments and equipment used by the discharger to fulfill the prescribed monitoring program shall be properly calibrated and maintained as necessary to ensure their continued accuracy.

7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and copies of all reports required by this Order. Records shall be maintained for a minimum of five years from the date of

the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

8. Records of monitoring information shall include:

   a. the date, identity of sample, Monitoring Point from which it was collected, and time of sampling or measurement;

   b. the individual(s) who performed the sampling or measurements;

   c. date and time that analyses were started and completed, and the name of the personnel performing each analysis;

   d. the analytical techniques or method used, including method of preserving the sample and the identity and volumes of reagents used;

   e. calculation of results; and

   f. results of analyses, and the Method Detection Limit for each parameter.

   g. laboratory quality assurance results (for example, percent recovery, response factor).

9. A grab sample is a sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

10. Where the Regional Board is satisfied that any chemical constituent(s) listed in Directive B will not occur in the discharge, the Regional Board may elect not to require monitoring for such constituents provided the discharger submits certification that such constituent(s) are not present in the discharge. The discharger shall submit the first certification within 45 days of obtaining coverage under Order No. R9-2003-0111. The first certification shall include laboratory analysis of the discharge for the specific constituents to be waived from this monitoring and reporting program or other information showing that the constituent(s) will not be present in the discharge.

B. INFLUENT, EFFLUENT, AND RECEIVING GROUNDWATER MONITORING

1. Receiving groundwater quality shall be monitored at a location unaffected by the discharge.

2. The discharger is responsible for monitoring the following volatile organic compounds (VOCs) in the treatment system influent, effluent and receiving groundwater and reporting in accordance with the following criteria:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Total Petroleum Hydrocarbons	µg/L	*	Monthly	Quarterly
Benzene	µg/L	*	Monthly	Quarterly
Ethylbenzene	µg/L	*	Monthly	Quarterly
Toluene	µg/L	*	Monthly	Quarterly
Total Xylenes	µg/L	*	Monthly	Quarterly
MTBA	µg/L	*	Monthly	Quarterly
TBA	µg/L	*	Monthly	Quarterly
TAME	µg/L	*	Monthly	Quarterly
Ethanol	µg/L	*	Monthly	Quarterly
DIPE	µg/L	*	Monthly	Quarterly
Other Oxygenates	µg/L	*	Monthly	Quarterly
Carbon Tetrachloride	µg/L	*	Monthly	Quarterly
1,2-Dichlorobenzene	µg/L	*	Monthly	Quarterly
1,4-Dichlorobenzene	µg/L	*	Monthly	Quarterly
1,1-Dichloroethane	µg/L	*	Monthly	Quarterly
1,2-Dicholroethane	µg/L	*	Monthly	Quarterly
1,1-Dichloroehylene	µg/L	*	Monthly	Quarterly
Cis-1,2-Dichloroethylene	µg/L	*	Monthly	Quarterly
Trans-1,2-Dichloroethylene	µg/L	*	Monthly	Quarterly
Dichloromethane	µg/L	*	Monthly	Quarterly
1,2-Dichloropropene	µg/L	*	Monthly	Quarterly
1,3-Dichloropropene	µg/L	*	Monthly	Quarterly
Monochlorobenzene	µg/L	*	Monthly	Quarterly
Styrene	µg/L	*	Monthly	Quarterly
1,1,2,2-Tetrachloroethane	µg/L	*	Monthly	Quarterly
Tetrachloroethylene	µg/L	*	Monthly	Quarterly
1,2,4-Trichlorobenzene	µg/L	*	Monthly	Quarterly
1,1,1-Trichloroethane	µg/L	*	Monthly	Quarterly
1,1,2-Trichloroethane	µg/L	*	Monthly	Quarterly
Trichloroethylene	µg/L	*	Monthly	Quarterly
Trichlorofluoromethane	µg/L	*	Monthly	Quarterly
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	*	Monthly	Quarterly
Vinyl Chloride	µg/L	*	Monthly	Quarterly

*Grab samples will be taken for the extracted and effluent groundwater sampling events. A normal well sample will be taken for receiving groundwater sampling events.

3. For sites where the groundwater basin has designated municipal and domestic supply beneficial uses, the discharger is responsible for monitoring the treatment system influent, effluent and receiving groundwater and reporting in accordance with the following criteria:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow Rate	gallons/day	NA	Quarterly	Quarterly
Total Dissolved Solids	mg/L	*	Quarterly	Quarterly
Total Phosphorus	mg/L	*	Quarterly	Quarterly
Aluminum	µg/L	*	Quarterly	Quarterly
Antimony	µg/L	*	Quarterly	Quarterly
Arsenic	µg/L	*	Quarterly	Quarterly
Barium	mg/L	*	Quarterly	Quarterly
Beryllium	µg/L	*	Quarterly	Quarterly
Boron	mg/L	*	Quarterly	Quarterly
Cadmium	µg/L	*	Quarterly	Quarterly
Chromium	µg/L	*	Quarterly	Quarterly
Chloride	mg/L	*	Quarterly	Quarterly
Copper	µg/L	*	Quarterly	Quarterly
Cyanide	µg/L	*	Quarterly	Quarterly
Flouride	mg/L	*	Quarterly	Quarterly
Iron	µg/L	*	Quarterly	Quarterly
Lead	mg/L	*	Quarterly	Quarterly
Manganese	µg/L	*	Quarterly	Quarterly
Mercury	µg/L	*	Quarterly	Quarterly
Nickel	µg/L	*	Quarterly	Quarterly
Nitrate as NO3	mg/L	*	Quarterly	Quarterly
Nitrate plus Nitrite (sum as Nitrogen)	mg/L	*	Quarterly	Quarterly
Nitrite as Nitrogen	mg/L	*	Quarterly	Quarterly
Percent Sodium	percent	*	Quarterly	Quarterly
Adjusted Sodium Absorption Ratio	NA			
Selenium	µg/L	*	Quarterly	Quarterly
Silver	µg/L	*	Quarterly	Quarterly
Sulfate (SO_4)	mg/L	*	Quarterly	Quarterly
Thallium	µg/L	*	Quarterly	Quarterly
Zinc	mg/L	*	Quarterly	Quarterly
Color	color units	*	Quarterly	Quarterly
Foaming Agents (MBAS)	µg/L	*	Quarterly	Quarterly
Odor Threshold	odor units	*	Quarterly	Quarterly
Turbidity	natural turbidity units	*	Quarterly	Quarterly
Combined Radium-226 and Radium-228	picocuries/L	*	Quarterly	Quarterly
Gross Alpha particle Activity (including Radium-226 but excluding Radon and Uranium	picocuries/L	*	Quarterly	Quarterly

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Tritium	picocuries/L	*	Quarterly	Quarterly
Strontium-90	picocuries/L	*	Quarterly	Quarterly
Gross Beta Particle Activity	picocuries/L	*	Quarterly	Quarterly
Uranium	picocuries/L	*	Quarterly	Quarterly

*Grab samples will be taken for the extracted and effluent groundwater sampling events. A normal well sample will be taken for receiving groundwater sampling events.

4. For sites where the groundwater basin has designated industrial service supply beneficial uses, but is excepted from the "Sources of Drinking Water Policy," the discharger is responsible for monitoring the treatment system influent, effluent and receiving groundwater and reporting in accordance with the following criteria:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow Rate	gallons/day	NA	Quarterly	Quarterly
Total Dissolved Solids	mg/L	*	Quarterly	Quarterly
Fluoride	mg/L	*	Quarterly	Quarterly
Iron	mg/L	*	Quarterly	Quarterly
Manganese	mg/L	*	Quarterly	Quarterly
Chloride	mg/L	*	Quarterly	Quarterly

*Grab samples will be taken for the extracted and effluent groundwater sampling events. A normal well sample will be taken for receiving groundwater sampling events.

5. For sites where the groundwater basin has designated agricultural supply beneficial uses, but is excepted from the "Sources of Drinking Water Policy," the discharger is responsible for monitoring the treatment system influent, effluent, and receiving groundwater and reporting in accordance with the following criteria:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow Rate	Gallons per day	NA	Quarterly	Quarterly
Total Dissolved Solids	mg/L	*	Quarterly	Quarterly
Sodium Adsorption Ration and Electrical Conductivity	See Basin Plan Table 3-1.	*	Quarterly	Quarterly
Total Nitrogen	mg/L	*	Quarterly	Quarterly
Bicarbonate (HCO_3)	mg/L	*	Quarterly	Quarterly
Boron	mg/L	*	Quarterly	Quarterly
Sodium	mg/L	*	Quarterly	Quarterly
Chloride	mg/L	*	Quarterly	Quarterly

*Grab samples will be taken for the extracted and effluent groundwater sampling events. A normal well sample will be taken for receiving groundwater sampling events.

6. For sites where the groundwater basin has designated municipal and domestic supply, and agricultural supply beneficial uses, discharger is responsible for monitoring the treatment system influent, effluent, and receiving groundwater and reporting in accordance with the criteria listed in Directives B.3 and B.5.

7. For sites where the groundwater basin has no designated beneficial uses, flow rate and total dissolved solids (TDS) in the treatment system influent, effluent and receiving groundwater shall be monitored and reported quarterly.

C. REPORTING REQUIREMENTS

1. The discharger shall submit quarterly groundwater monitoring reports to the Regional Board no later than 30 days following the end of the quarter according to the following schedule:

REPORTING TERM	REPORTING PERIOD	DATE OF SUBMITTAL
1st Quarter	January, February, March	April 30th
2nd Quarter	April, May, June	July 30th
3rd Quarter	July, August, September	October 30th
4th Quarter	October, November, December	January 30th

2. All reports required by this Monitoring and Reporting Program shall be submitted pursuant to section 13267 of the CWC.

3. Information in the monitoring reports shall be consistent with the sampling and analysis plan required in Directive A.3 of this Monitoring and Reporting Program and shall contain sufficient information to demonstrate compliance with the discharge limitations in Order No. R9-2003-0111.

4. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, constituents, concentrations, and monitoring locations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements. Laboratory analytical data from any soil testing and/or groundwater monitoring shall be reported in the appropriate Electronic Format to the Geotracker data warehouse if required by CWC section 13195 et seq. and CCR, Title 23, section 2729.1. The web address for the Geotracker data warehouse is http://geotracker.swrcb.ca.gov.

5. Each report shall be sent under cover of a transmittal letter summarizing the essential points of each report. The transmittal letter shall include a discussion of

any requirement violations found and actions taken or planned for correcting the violations. If no violations occurred, this shall be so stated in the transmittal letter; and

6. Each monitoring report must contain an affirmation in writing that states: "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services and in accordance with current USEPA procedures or as specified in this Monitoring and Reporting Program."

7. Any person signing a document under this Section shall make the following certification:

   "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

8. Reports shall be submitted to the Regional Board Executive Officer:

   Executive Officer
   California Regional Water Quality Control Board
   San Diego Region
   9174 Sky Park Court, Suite 100
   San Diego, CA 92123-4340
   Attention: Supervisor, Tank Site Mitigation and Cleanup Unit

Ordered by:_____
JOHN H. ROBERTUS
Executive Officer
Date